

document,

computing and storing a page location of each identified local hypertext link within the document,

(b) sequentially checking printable objects to identify each printable object within a hypertext anchor tag; and

rendering each identified printable object within said hypertext anchor tag with a predefined indication of the hypertext link.

REMARKS

Claims 1-3, 6, 10, 12-14 and 16 stand rejected under 35 USC §103 as being unpatentable over Stork et al., U.S. patent 5,781,914 in view of Kogan et al., U.S. patent 5,809,317. Claims 4, 5, and 8 stand rejected under 35 USC §103 as being unpatentable over Stork et al., U.S. patent 5,781,914 and Kogan et al., U.S. patent 5,809,317 in view of publication Microsoft Word Tutorial "Microsoft Word Basic Features". Claims 7 and 9 stand rejected under 35 USC §103 as being unpatentable over Stork et al., U.S. patent 5,781,914 and Kogan et al., U.S. patent 5,809,317 in view of publication Advanced Microsoft Word "Footnotes and Endnotes".

Claim 3 has been amended to more clearly state the invention and new claim 17 has been added that generally corresponds to original claim 1. Reconsideration and allowance of each of the claims 1-10, 12-14 and 16-17, as amended herein, is respectfully requested.

Stork et al., U.S. patent 5,781,914 discloses a conversion method and

apparatus that allows for converting a hardcopy document into a hyperdocument and vice versa. During hardcopy to hyperdocument conversion, hypertext information stored on the hardcopy document is used to set up links to other documents. During hyperdocument to hardcopy document conversion, hypertext link information is encoded and stored on the hardcopy document. A process is described where a hypertext document is converted into a plain paper document. One embodiment of this process is shown in FIG. 5. The hardcopy document that results contains hypertext link information in machine readable format to enable conversion back into a hypertext document format. Thus, the link information will be available to the user to enable a reversal back into a hypertext document. Referring to FIG. 5, the conversion process begins by creating a bit map of a hyperpage that is currently displayed on the display screen from a screen "dump" (processing block 501). An example of such a document is shown in FIG. 6A. A portion of the bit map is shown in FIG. 6B. Once a bit map has been created, the hyperwords in the bit map are detected (processing block 502). In one embodiment, the hyperwords are detected by using a template. Such a template is shown in FIG. 6D. The bit map locating portions of the bit map are searched with the template, generating correlation values. FIG. 6E illustrates correlation values around the boxed region shown in FIG. 6C. The correlation value indicate whether there is a high correlation between portions of the document and the template. Once the marked words have been identified, the location and hyperlink information is encoded (processing block 503), the information is formatted into one or more pages (processing block 504), and a hardcopy document is printed having a sidechannel with encoded

hyperlink information (processing block 505). In one embodiment, a template may be encoded as well for use in locating active regions.

Kogan et al., U.S. patent 5,809,317 discloses a method and apparatus for relating (called hyperlinking) a region of one document to one or more regions of other documents. This is provided by using a mechanism for linking and embedding objects to establish the endpoints of the hyperlinks (called anchors) together with the creation of intermediate tables which maintain information about relations between regions of documents and attributes of the relationship. When a user selects a region in a document which participates in a relationship, a database program is invoked which displays information about related regions in other documents which may be accessed through the intermediate tables. An auxiliary table maintains information about attributes which may be custom designed by the user, such as author, date of creation, etc. The intermediate tables allow relationships among multiple regions of documents created by different applications. Relationships are bidirectional in that the user can traverse from any region in a document to any other region in the same relationship. In the preferred embodiment, hyperlinks are implemented via four database tables. The first table represents the anchors, that is the endpoints of the hyperlinks. The rows in the anchors table include at least two fields: an internal identifier through which the system references the anchor, and a link to the container document (in a preferred embodiment, the link is created using the OLE brand object linking and embedding system available from Microsoft Corporation of Redmond, Wash., however, it can be appreciated by one skilled in the art that other mechanisms for linking and embedding

objects in documents and maintaining those links can be used in alternative embodiments, e.g., the NewWave brand system available from Hewlett-Packard). The anchor object represented by a row in the table is embedded using OLE into the document to be hyperlinked. This is shown pictorially in FIG. 5. The dual use of OLE connections for a single anchor overcomes the limitations of the unidirectionality of OLE connections. The embedded anchor object allows the hyperlink application to be activated when users initiate a link traversal. The OLE link from the table entry to the anchor region in the document allows the hyperlink manager to open the appropriate document upon completion of a link traversal.

The publication Microsoft Word Tutorial "Microsoft Word Basic Features" discloses a word processing program enabling text to be displayed in bold or superscript form.

The publication Advanced Microsoft Word "Footnotes and Endnotes" discloses a word processing program enabling text to be displayed in footnote form.

Claims 1, 17, and 10 respectively recite computer implemented methods and apparatus for identifying hypertext links in document printouts. Claim 13 recites a computer program product for implementing document printing including identification of hypertext links. On a WEB document printout, generally no information about the hypertext links is available within the text of the printed document. Web documents are designed for browsing or reading on line. When reading a web based document on line, a user uses a mouse to click on the hypertext links or references to see the linked information. The present invention, as recited in each of the independent claims 1, 10

and 13, enables identifying hypertext links in document printouts. The subject matter of the independent claims 1, 10 and 13 is not shown nor suggested in the references of record.

Each of the independent claims 1, 17 and 13 respective recite the step of or means, recorded on the recording medium, for sequentially checking printable objects to identify each printable object within a hypertext anchor tag; and rendering each identified printable object within said hypertext anchor tag with a predefined indication of the hypertext link. Independent claims 1 and 13 further recite that the rendering step includes printing a corresponding uniform resource locator (URL) for each external hypertext link. The cited Stork et al. and Kogan et al. references provide no suggestion or any means for or the step of checking printable objects to identify each printable object within a hypertext anchor tag. The cited Stork et al. and Kogan et al. references provide no suggestion or any means for or the steps of rendering each identified printable object within said hypertext anchor tag with a predefined indication of the hypertext link; nor any suggestion or any means for printing a corresponding uniform resource locator (URL) for each external hypertext link.

To prevent the use of hindsight based on the invention to defeat patentability of the invention, the Court of Appeals for the Federal Circuit requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for

combination in the manner claimed. In determining that one of skill in the art would have been motivated to combine these references in a manner that rendered the claimed invention obvious, a motivation to choose these references for combination must be identified. Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. See B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp., 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996). "Virtually all [inventions] are combinations of old elements." Environmental Designs, Ltd. v. Union Oil Co., 713 F.2d 693, 698, 218 USPQ 865, 870 (Fed. Cir. 1983); see also Richdel, Inc. v. Sunspool Corp., 714 F.2d 1573, 1579-80, 219 USPQ 8, 12 (Fed. Cir. 1983). ("Most, if not all, inventions are combinations and mostly of old elements."). Therefore an Examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be "an illogical and inappropriate process by which to determine patentability." Sensonics, Inc. v. Aerasonic Corp., 81 F.3d 1566, 1570, 38 USPQ2d 1551, 1554 (Fed. Cir. 1996).

Only Applicants teach a computer implemented method and apparatus for identifying hypertext links in document printouts including the above limitations of claims 1, 17 and 13 or as further defined in claims 1 and 13. Combining the total teachings of

the cited Stork et al. and Kogan et al. references does not suggest nor achieve the claimed invention. Stork et al. teach the use of encoded, machine-readable information to enable hypertext documents to be created automatically, without user interaction. Kogan et al. teach the use of anchors together with the creation of intermediate tables that maintain information about relationships between regions of documents, and Kogan et al. add nothing to render obvious the claimed invention. The publications Microsoft Word Tutorial "Microsoft Word Basic Features" and Advanced Microsoft Word "Footnotes and Endnotes" add nothing to suggest the invention of claims 1, 17, and 13. Thus, each of the independent claims 1, 17, and 13 are patentable.

Apparatus for identifying hypertext links in document printouts as recited by independent claim 10 is not shown nor suggested by the total teachings of the cited Stork et al. and Kogan et al. references. Independent claim 10 recites a stored document data, said document data including each local hypertext link name and a page number for each said local hypertext link name; and a printing program utilizing said stored document data for printing a document including a predefined indication of each hypertext link within the document to be printed including a corresponding uniform resource locator (URL) printed for each external hypertext link. The Stork et al. and Kogan et al. references do not disclose nor suggest the recited limitations of independent claim 10. The publications Microsoft Word Tutorial "Microsoft Word Basic Features" and Advanced Microsoft Word "Footnotes and Endnotes" add nothing to suggest the invention of claim 10. Thus, independent claim 10 is patentable.

Applicants have reviewed all the art of record, and respectfully submit that

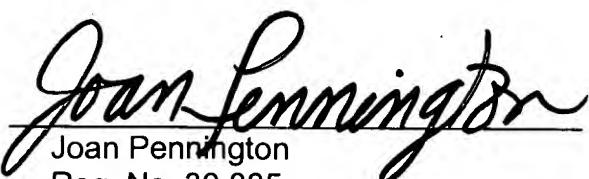
the claimed invention is patentable over all the art of record, including the references not relied upon by the Examiner for the rejection of the pending claims.

Each of the dependent claims 2-9, 12, 14, and 16 are patentable for the same reasons as independent claims 1, 10, 13, and 17. Dependent claims 2-9, 12, 14, and 16 further define the invention of patentable claims 1, 10 and 13 and are likewise patentable.

It is believed that the present application is now in condition for allowance and allowance of each of the pending claims 1-10, 12-14 and 16-17, is respectfully requested. Prompt and favorable reconsideration is respectfully requested.

If the Examiner upon considering this amendment should find that a telephone interview would be helpful in expediting allowance of the present application, the Examiner is respectfully urged to call the applicants' attorney at the number listed below.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Please amend claim 3 and add new claim 17 as follows:

3. (Twice Amended) The computer implemented method for identifying hypertext links in document printouts as recited in claim 2 includes responsive to identifying said local hypertext link, printing said identified page number for said local hypertext link with said printable object.

17. A computer implemented method for identifying hypertext links in document printouts comprising the steps of:

scanning a document to be printed and identifying local hypertext links within the document,

computing and storing a page location of each identified local hypertext link within the document,

sequentially checking printable objects to identify each printable object within a hypertext anchor tag; and

rendering each identified printable object within said hypertext anchor tag with a predefined indication of the hypertext link.